

American S. S. *Hera*, Capt. A. F. Mellgard; observer, H. I. Christensen, Marseille to New York:

August 30, 2 a. m., in 35° N., 53° 15' W. A large waterspout rising. In shape of inverted V until covering the moon and skies in the SW., then moving slowly to the south and east and then

disappearing in a rain squall. During the time it was passing and making up the wind was calm. After passing, the sound of distant humming was heard. No water fell on or near ship. Time from beginning to breaking was about 2 minutes. Distance of vessel about 7 miles. Before and after passing, clear moonlight, gentle NW. breeze, moderate sea.

Ocean gales and storms, August, 1925

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Low-est barom-eter	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Manchester Merchant, Br. S. S.	Manchester	St. John, N. B.	50 20 N.	31 02 W.	3d	11 p. 3d	3d	Inches 29.54	N	N., 7	N	NW., 8	Steady.
Maine, Dan. S. S.	Montreal	Copenhagen	57 10 N.	36 15 W.	6th	9 a., 6th	7th	29.29	N	N., 9	NNE	N., 9	N-NNE.
Dania, Dan. S. S.	Newcastle	Boston	50 00 N.	40 39 W.	6th	10 p. 6th	do	29.78	NW	NNW	N	NNW., 8	Steady.
Am. Shipper, Am. S. S.	London	New York	48 08 N.	26 25 W.	10th	4 p. 11th	12th	29.72	SW	SW., 7	W	SW., 9	SW.-NW.
Hoosac, Br. S. S.	Liverpool	Boston	49 40 N.	29 25 W.	19th	8 p., 19th	20th	29.57	SW	W., 10	NW	—, 11	SW.-W.
Antinous, Am. S. S.	London	Mobile	34 38 N.	63 05 W.	20th	2:30 a. 20th	20th	29.34	SW	SW., 9	W	—, 12	4 pts.
Brit. Star, Br. S. S.	Port Arthur	Southamp- ton.	47 30 N.	23 54 W.	19th	3 a., 20th	20th	29.73	S	S., 7	NW	NW., 9	S.-NW.
Do	do	do	47 51 N.	15 56 W.	20th	4 p., 21st	22d	29.83	NW	NW., 9	NNW	NW., 9	NW.-NNW.
West Campgaw, Am. S. S.	Bremen	Philadelphia	49 00 N.	22 12 W.	22d	2 p., 22d	23d	29.62	W	W., 5	NNW	—, 8	W.-NW.
Bird City, Am. S. S.	Copenhagen	Portland, Me	51 10 N.	40 58 W.	25th	5 p., 25th	29th	29.46	NW	NW., 8	NW	—, 8	NW.-NNW.
Ecuador, Am. S. S.	New York	Canal Zone	13 00 N.	75 00 W.	24th	6 a., 25th	26th	29.79	ESE	NE., 7	NE	NE., 7	E-NE.
Alberta, Ital. S. S.	do	Gibraltar	40 20 N.	40 12 W.	27th	9 p.	27th	29.71	SE	SW., 8	W	SW., 9	SE.-S.-W.
Stockholm, Swed. S. S.	Gothenberg	New York	57 46 N.	16 42 W.	27th	4 a., 28th	29th	29.40	SSW	SSW., 8	W	WSW., 10	SSW.-W.
Frederik VIII, Dan. S. S.	Oslo	do	59 20 N.	9 00 W.	31st	8 p., 31st	Sept. 2	29.70	WSW	WSW., 8	W	W., 8	WSW.-W.
SOUTH PACIFIC OCEAN													
Makura, Br. S. S.	Papeete	Rarotonga	33 00 S.	174 00 W.	July 30	4 a., 31st	Aug. 2		ENE	E	ESE	ESE., 9	ENE.-ESE.
NORTH PACIFIC OCEAN													
West Calera, Am. S. S.	Sydney, N. S. W.	San Francisco	15 55 N.	152 30 W.	July 31	6 a., 1st	1st	29.74	NE	NE., 8	E	NE., 9	
Vancollite, Can. S. S.	San Pedro	Iquique	18 51 N.	105 27 W.	16th	5 p., 16th	17th	29.79	NE	NE., 3	ESE	ESE., 9	NE.-ESE.
West Cayote, Am. S. S.	Japan	San Francisco	46 27 N.	173 34 E.	19th	mid 19th	22d	29.47	ENE	ENE., 7	SW	NE., 9	NE.-N.-NW.
West Prospect, Am. S. S.	San Francisco	Japan	33 06 N.	136 30 E.	20th	7 a., 20th	21st	29.93	E	E., 10	E	E., 10	Steady.
West Carmona, Am. S. S.	do	Yokohama	47 30 N.	175 30 E.	28th	1 p., 29th	29th	29.42	S	SW., 8	NNW	SW., 8	SW.-WNW.
Yokohama Maru, Jap. S. S.	Yokohama	Victoria	43 26 N.	162 44 E.	28th	5 p., 29th	30th	29.37	SSW	S., 9	WSW	—, 10	SSW.-S.

NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

The eastern North Pacific high-pressure area was well established in August, as during several consecutive previous months. In fact, it was less disturbed by cyclones than is usually the case; hence generally settled weather and light winds prevailed over the greater part of the region between the Hawaiian Islands and the United States. Near the crest of the HIGH the pressure averaged about 30.40 inches—some 0.10 inch above the normal.

Results of this at Honolulu were: Fair days in exceptional number, wind directions almost entirely from the east, and, owing to the considerable gradient on the lower slope of the HIGH, a record average wind velocity for August of 11 m. p. h. The maximum velocity of 35 miles, from the east, on the 3d, equaled the previous record. Rainfall at Honolulu continued light, the total being only 0.18 inch, or 1.10 inches less than the normal. It was the second driest August on record.

There was some low pressure along the 50th parallel, but no pronounced cyclonic conditions until near the end of the month, when a rather intense LOW, apparently having moved from the eastern coast waters of Asia, was central near 50° N., 175° E., on the 29th, accompanied by gales, one vessel reporting a wind force of 10. It advanced into Bering Sea and lay over western Alaska on the 31st.

Pressure for the island stations in the eastern North Pacific, and for a few stations on the American coast, are given in the following table:

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
Dutch Harbor ¹	(²)					
St. Paul ¹	29.82	+0.06	30.34	19th	29.22	30th
Kodiak ¹	29.83	+0.08	30.36	20th	29.56	31st
Midway Island ¹	30.03	-0.06	30.24	31st	29.90	7th
Honolulu ¹	29.99	-0.02	30.09	20th	29.87	24th
Juneau ³	30.01	-0.01	30.25	15th	29.68	29th
Tatoosh Island ³	30.05	0.00	30.33	3d	29.79	22d
San Francisco ³	29.98	+0.04	30.14	20th	29.81	16th
San Diego ³	29.93	+0.04	30.05	3d	29.82	16th

¹ P. m. observations only.

² Data missing.

³ 26 days.

⁴ 30 days.

⁵ A. m. and p. m. observations.

⁶ Corrected to 24-hour mean.

The minimum pressure readings in the Gulf of Alaska and lower Bering Sea stations occurred coincidentally with the highest reading at Midway Island.

Low pressure prevailed in the Far East, and considerable cyclonic activity occurred, though our available vessel reports from these waters give only meager indications of the extent and violence of the storms. A typhoon coming in from the ocean on the 17th caused several deaths in southern Japan, and wrecked houses in Osaka and other cities. The American steamer *West Prospect*, while not far from Yokohama on the 18th,

experienced the retreating southerly winds, force 7, of this storm, and checked speed to avoid possible trouble. But two days later, while en route toward China, in 33° 06' N., 136° 30' E., she ran into an easterly gale, force 10, of another typhoon, in which she hove to from 7 a. m. of the 20th until 5.30 p. m. of the 21st.

Further discussion of the storms of this region is found in the article by the Rev. José Coronas, S. J., at the end of this section.

In Mexican coast waters an apparently small and only moderately intense tropical cyclone occurred on the 16th. On that date the American steamer *Maricos H. Whittier* experienced a SE. wind, force 7, in 17° 15' N., 106° 02' W., at 6 a. m. At 5 p. m. the Canadian steamer *Vancolite*, northward bound, ran into a moderate gale, "wind increasing in squalls to force 9, ESE., barometer 29.79, heavy sea, vessel pitching and straining heavily, and shipping heavy water." This was in 18° 51' N., 105° 27' W.

The American steamer *West Calera*, Sydney, N. S. W., to San Francisco, reports a gale which, on account of its position and its attendant barometric depression, is of interest. The following is the account by the observer, Mr. A. Skjellerup.

On July 31, 1925, in latitude 15° 20' N., longitude 152° 12' W., encountered severe gale commencing at 2 p. m. with showers, squalls, and heavy swell from NE. The wind remained steady in direction and gradually increased till 7 a. m., August 1, when it reached force 9. Overcast and raining. At 11 a. m. wind veered to east, easing gradually from then to force 5 at 7 p. m. At 2 p. m., 31st, the barometer was 29.88, falling gradually till 6 a. m., 1st, when it was 29.74, from then commencing to rise slowly, reading 29.92 at 7 p. m.

Except as noted above, few and inconsequential gales seem to have occurred along the great northern steamship routes.

Fog, as in July, was frequent and heavy in upper latitudes, and several vessels en route there reported a continuance of it for days at a time. It also was observed on several dates along practically the entire American coast from northern Alaska to near Cape San Lucas.

American S. S. "Mexican," Canal to Los Angeles.—August 14, 12 noon, in 16° 12' N., 99° 15' W., passed a very large waterspout about 2 miles off. Two smaller ones near by had either just broken up, or were just about to form. Gentle E. breeze, cloudy (A.-Cu. and Cu.-Nb.), barometer 29.89, temperature of air 84°, of sea 78°.

INDIAN OCEAN

Observations covering a considerable part of August indicate that the southwest monsoon was especially strong in the Arabian Sea, being of force 8 on several days. The American steamer *Ensley City*, Shanghai to Calcutta, from August 2 to 16, reported "SW. monsoon winds very regular in south China Sea and Bay of Bengal, especially strong in latter."—*W. E. H.*

TWO JAPAN AND ONE FORMOSA TYPHOONS, IN AUGUST, 1925

By Rev. JOSÉ CORONAS, S. J.

[Weather Bureau, Manila, P. I.]

Although the rainfall in the Philippines during the past month of August has been quite above the normal, yet there was no real typhoon over the Philippine Archipelago in the whole month but only a low-pressure area covering the northern part of Luzon on the 29th. Three severe typhoons, however, were shown by our Weather Maps over the Far East, two over or near Japan and

one close to north Formosa, although only that of Formosa influenced the weather in the Philippines. There was another typhoon near Guam at the end of the month, but its track belongs rather to the month of September. The low-pressure area of Luzon of the 29th moved on the 30th to the China Sea, where it developed into a depression or typhoon near the Paracels and probably filled up on September 2 near the Indo-China coast.

The first Pacific typhoon was probably formed on the 9th to 11th near 140° longitude E. and 15° latitude N. It moved first to NNW. and N. by W. and was met by the Japanese transport *Ondo* on her way from Tokio to Borneo, when she was in 134° 40' longitude E. and 24° 30' latitude N., her barometric minimum being 732 mm. (28.82 inches) at 8 a. m. of the 14th, and the winds blowing with hurricane force (11 Beaufort scale) from N. by E. While the barometer was rising after 8 a. m., the winds backed rapidly to NW., WNW., W., and WSW.

The typhoon moved practically to the north on the 16th and the morning of the 17th. After noon of the 17th it moved northeastward across the Sea of Japan. At 6 a. m. of the 17th the typhoon was over southwestern Japan. The approximate positions of the center at 6 a. m. of the 14th to 18th were as follows:

	Latitude	Longitude
Aug. 14, 6 a. m.-----	24 05 N.	135 00 E.
Aug. 15, 6 a. m.-----	26 30 N.	134 20 E.
Aug. 16, 8 a. m.-----	29 10 N.	133 50 E.
Aug. 17, 6 a. m.-----	35 00 N.	133 10 E.
Aug. 18, 6 a. m.-----	44 40 N.	133 35 E.

The second Pacific typhoon appeared on our Weather Maps of the 17th to the ENE. of Guam, near 150° longitude E. and 17° latitude N. It moved W. by N. until the 23d, when it recurved to NNE. near 138° longitude and 19° latitude, increasing considerably its rate of progress after two days of a very slow movement. At 6 a. m. of the 24th its center was shown in our Weather Map about 115 or 120 miles to the west of the Bonins, where the barometer had fallen to 740 mm. (29.13 inches), with southeasterly winds, force 6. During the 24th and 25th the typhoon moved to NNW. and NW.; on the 26th it took again a NNE. direction and in the morning of the 27th it traversed central Japan, probably as only a depression and moving N., although in the afternoon of the same day it recurved to ENE., entering again the Pacific on the 28th.

The Formosa typhoon was probably formed on the 22d to 23d about 350 or 400 miles to the east of north Luzon. After remaining almost stationary or moving very slowly to WNW., NW., and N. on the 23d, the 24th, and the morning of the 25th, it increased its rate of progress in the afternoon of the 25th while moving NNE. about 300 miles to the east of Bashi Channel. But in the afternoon of the 26th it took almost suddenly a WNW. direction toward Meiacosima group of Islands and north Formosa. Its center passed over Meiacosima in the early morning of the 27th and very close to north Formosa in the afternoon of the same day. Two steamers were much involved in this typhoon near Formosa in the northern part of Formosa Channel—the Japanese steamer *Mayebashi Maru*, with barometric minimum 737.09 mm. (29.06 inches), wind NW. 10, at 3 p. m. of the 27th, in 120 34' longitude E. and 25 24' latitude N., and the American steamer *President Jefferson*, with a barometric minimum 743.75 mm. (29.28 inches), wind